continuation application.

Claim 21 also stands rejected under 35 U.S.C. 102(b) as being anticipated by Parad. It is respectfully submitted that claim 21 distinguishes over Parad for the following reasons.

Both Parad and Applicant describe methods and systems for allocating resources for different jobs. However, Parad and Applicant approach the problem in different ways. Parad teaches that a schedule for deploying resources can be developed ahead of time -- before the resources are needed. For example, calculations may be performed during the night hours to create a schedule for the use of a number of resources for the following day. Once Parad's schedule has been created, no revisions will be needed unless an error condition (called an "event" by Parad) occurs. If there are no "events" during the next day, the resources will be activated as set out in the original schedule. No additional calculations will be needed. However, if a deviation from the original schedule becomes necessary, Parad provides a fast method for recalculating the entire day's schedule. Each time an "event," occurs -- when a worker is absent or a piece of machinery breaks down, for example -- the schedule is recalculated.

Calculating and recalculating schedules demands significant computer processing resources, and thus is often

carried out in advance or overnight. Applicant avoids the need to calculate an entire day's schedule in advance by continuously assigning resources to different jobs on an ongoing basis. If a job needs to be accomplished quickly, it may receive a resource before another, similar job. If a piece of equipment breaks down, it is not seen as an error condition; the piece of equipment is just removed from the list of available resources and the system proceeds to assign resources without using the broken piece of equipment. This avoids the complexities involved in attempting to calculate a complete schedule for resource usage in advance.

These aspects of the system, as well as the claimed system's ability to use criteria such as cost and speed for activating resources, is illustrated by the following example. One may assume that the resources are network printers and that the jobs are print jobs of various lengths and complexities. One printer in the network is a high quality laser printer and the others are dot-matrix printers. At the start of operations, the system evaluates the pending jobs and the availability of resources and assigns jobs to printers based on, for example priority. If the criterion used for completing a certain job is "speed," all printers may be used simultaneously to accomplish a single job as quickly as possible. If "quality" is the criterion, then the jobs may

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all be queued at the laser printer so that quality will be high even though the process will take longer. Various jobs may also be ordered according to priority -- thus when "quality" is the criterion, the jobs will be queued at the laser printer and carried out in order of decreasing priority. Significantly, a schedule is not made out in advance. Rather, the system assigns resources on an ongoing basis. Thus if a printer breaks the system assigns other resources to a task. If a new job is added, it can be performed based on its urgency and other qualities without any schedule recalculations.

Claim 21 requires a process for the activation of resources where ongoing optimization simulation occurs. Parad does not teach a system that carries out "ongoing optimization simulation" as required by this claim. Parad teaches a scheduler that can calculate a new schedule whenever an error condition, such as a broken piece of equipment, is detected. This calculation only occurs when an "event" is detected. Otherwise, Parad calculates a daily schedule ahead of time, the night before the jobs are to be performed, for example, and performs no additional calculations unless an error condition is detected. Because Parad does not carry out an ongoing optimization simulation as required by claim 21, it is submitted that claim 21 distinguishes over the prior art.

Claim 32 defines the invention in a manner similar to the textual description provided above. This claim attempts to make clear that the step of evaluating resources occurs on a continuing basis and that the subject invention is not merely a scheduler. Instead, the necessity of advance scheduling is dispensed with. The system selects and uses resources on an ongoing basis to accomplish whatever job is being executed. As new jobs enter the system or problems occur, the system checks all available resources and assigns the best resource for the job. This resource may be one that is already in use for a different job of lower priority.

Thus claim 32 requires a database of resources including resource properties and the status of each resource and further requires the step of, on an ongoing basis, selecting and activating resources based on certain criteria and on the resource properties to accomplish the jobs. Because Parad does not select resources on an ongoing basis, but rather selects and schedules resources only once unless an error condition occurs, it is respectfully submitted that claim 32 distinguishes over this reference.

Each issue raised in the Office Action dated December 20, 1999, has been addressed and it is believed that the pending claims are in condition for allowance. Wherefore, reconsideration and allowance claims 2, 3, 5, 9, 11, 15, 16,

and 19-22, 24, and 26-31 and examination and allowance of claim 32 is earnestly solicited.   Applicant's attorney can be reached at the below telephone number if the examiner believes that an interview would help place the claims in condition for allowance.

Respectfully submitted,
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